

FOOD
MEDICINE

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SECRET

OFFICE OF STRATEGIC SERVICES

Washington, D. C.

15 November 1943.

MEMORANDUM TO: Chief, Procurement & Supply Branch, OSS.
(Attention: Mr. Mayo)

1. The initial work on the matter pertained to #12967 Toulmin for 109 in the War Department, rations with Stock Control, A.S.F. The items mentioned in the dispatch being Quartermaster supplies, are handled by the section headed by Colonel Davis, Q.M.C., assisted by Major Gray, Q.M.C.

2. The subject was taken up by the undersigned with that activity this date, with the following results:

a - The matter of whether there are 7,000 tons of rations in excess should be confirmed by the Theater Commander, Middle East, Cairo. Do the contents of this cable, so far as these rations are concerned, have Theater Commander Approval?

b - If the rations in question are excess and are required at Bari, the Theater Commander, Middle East, can ship these rations to Bari upon request of the Theater Commander there or in North Africa without further reference to the War Department. This is a matter between the two Theater Commanders, if the supplies in question are actually in excess in their present theater.

c - If this action cannot be accomplished at all, the Theater Commander in which the excess now exists should state this excess, and that he has no objection to their removal to the theater where they will be required. The matter then can be referred by Stock Control for adjustment between the theaters, and the supplies ordered moved to Bari.

d - No report has been received by the War Department to the effect that these rations are in excess. Theater Commanders have no authority to turn War Department food over for use in occupied territory without the authority of the War Department, except in case of emergency. If a report of this excess is received, with or without recommendations, the Q.M. Section, Stock Control, ASF, will advise the undersigned.

3. Again referring to the fact that the declaration of this excess and information to that effect, together with its use elsewhere should have the approval of the Theater Commander concerned with a recommendation as to its use, Stock Control,

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ASST. believes that OSS should wire the reporting OSS activity at Cairo and obtain this sanction or approval, of the Theater Commander with respect to this excess and its availability for use by the War Department elsewhere. Suggest also that the attention of the OSS officer at Cairo be invited to the fact that the shipment of this excess or such as is needed between theaters can be worked out by the theaters concerned without approval of the War Department.

SHERMAN I. STONE,
Colonel, U.S. Army,
Chief, Supply Division

See Cate. 12967. 1 -
Quelam Cairo 11/10/42

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Copy to Maj Kirk

4 September 1943

MEMORANDUM FOR THE JOINT CHIEFS OF STAFF:**SUBJECT: Vitamins**

1. On January 19, 1943 it was proposed that highly concentrated vitamins be developed for distribution our guerrilla groups in occupied countries. 1,000,000 of these tablets were ordered. These tablets are so highly concentrated that one, or at the most, two tablets provide vitamin requirements for one week.
2. The tablets were received on August 20th, and one-quarter million have already been sent, with Chinese labels, to the Far Eastern theater. Three hundred thousand have been allocated to Greece and are awaiting shipping authorization from the theaters. Labels have been prepared in Greek and in the three languages of Yugoslavia. Small waterproof containers for vitamin and other tablets have been developed at our request and are now on order.

William J. Donovan
Director

Ford & Macdonald
x Vitamin Concentrate

Planning Group

SECRET

Mr. J. Donovan, Director

12 August 1943

Executive Officer, O-S Planning Group

Vitamin Concentrates

Your attention is respectfully requested to the following action of the OSS Planning Group at its meeting on 12 August 1943:

"THE PLANNING GROUP

Agreed to recommend to the Director of Strategic Services that a second 125,000 vitamin concentrate tablets be allocated to the SAOU project, being properly labeled, and be held available for shipment upon later notification."

The Planning Group would appreciate learning of whatever action is taken by you.

A. H. Onthank,
Colonel, U. I.

AHQ/frh

cc: Mr. Rogers
Major Deering
Comdr. Higgins

SECRET

Ensign E. J. Putzell, Jr.

7 September 1943

Major Charles M. Sears, Jr.

Procurement of Multi-vitamin Tablets

1. On 28 August 1943 the Planning Group reviewed a study on the possibilities of vitamins as a weapon of psychological warfare and recommended to the Director that steps be taken to include in the OSS catalogue a requirement statement for multi-vitamin tablets sufficient to take care of 100,000 persons for a six months period, such tablets to be made available for OSS agents, operatives, guerrilla bands, and other under-cover workers.
2. According to its memorandum of 4 September 1943, the Planning Group understands that the Services Branch has already taken steps to procure the necessary justification for a request to ASP to include in the present OSS catalogue a requirement of 35,500,000 tablets to cover a twelve months period, of which number 3,650,000 will probably be available for use in 1943.
3. General Donovan has instructed me to request that you take the action necessary to accomplish the recommendation of the Planning Group and that you advise the Planning Group of the action taken.

E. J. P., Jr.

PUTZELL:PETERSON

SECRET

Files
To: Secretariat *→*

The General has indicated his approval of the request contained in the attached memo from Lt. Bane, and it is returned to you for further action.

J. P. Macaulay
J. P. Macaulay

Don't B
Director's Office

(9308)

3/14/64

MS. OK
2/14/64

OSR 2000 40124

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Date: March 1944

To:

General Donovan

Dr. Hamilton thinks it will be helpful in following through on your request to him to get some Atabrine if he could make use of your letter to the President on the Atabrine situation. He proposes to show it to certain personnel in Governor Lehman's organization whose cooperation Dr. Hamilton feels he has a good chance of securing.

Since you originally sent a copy of your memorandum to the President to Governor Lehman, you may wish to approve making it available to Dr. Hamilton for the purposes mentioned.

Dr. Hamilton
W. H. A. Bone
W. H. A. Bone
 Office of the Secretary

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(3139)

Food & Medicine 11975
Planning Group
Atabrine
Vitamins

June 19, 1943

MEMORANDUM FOR Dr. Rogers:

I am attaching a copy of the memorandum I sent to the President today. In simple terms it means that OSS will continue to deliver to its Allied groups in various countries such supplies of atabrine, vitamins and food as may be necessary in the carrying on of active operations.

In addition, as part of the military program of psychological warfare, it is suggested that through our Advisory Committee a plan be worked out to deal with this medical and food problem on a larger scale using OSS as a distributor through the medium of its underground affiliations.

I wish with that in mind you would take the matter up with the Advisory Committee and associate with you in the discussion Governor Lehman, and if you think it advisable at this time Mr. Stettinius. Once this is done present the matter to the Planning Group with a view of working out a comprehensive method of meeting the problem.

William J. Donovan

June 19, 1943

The Hon. Herbert Lehman
Foreign Relief and Rehabilitation
State Department
Washington, D. C.

My dear Governor Lehman:

Here is copy of a memorandum I have
sent to the President. I hope you agree.

Dr. Rogers will be getting hold of
you and I hope something will be worked out
before my return.

Sincerely yours,

William J. Donovan

June 19, 1963

The Hon. Herbert Lehman
Foreign Relief and Rehabilitation
State Dept.
Washington, D.C.

My dear Governor Lehman:

Here is copy of a memorandum I
have sent to the President. I hope you
agree.

Dr. Rogers will be getting hold
of you and I hope something will be worked
out before my return.

Sincerely yours,

William J. Donovan

June 19, 1943

MEMORANDUM FOR THE PRESIDENT

FROM: William J. Donovan

Governor Lehman is to talk with you concerning the use of food and medicine as a weapon of war, a subject which I discussed with him yesterday.

Due to your support we have already been successful in getting some dehydrated food into Yugoslavia.

Our real problem is to give nourishment to the resistance groups with whom we are working. Everywhere there is undernourishment, particularly in China. In addition malaria exists in nearly all of the places where we shall penetrate.

In areas where it is now impossible or undesirable to attempt to supply the population as a whole, Strategic Services does have means to supply specific resistance groups. For humanitarian reasons as well as for strengthening our position with these hidden armies of occupied areas in aiding their will to resist, we present the following:

-2-

1. Move atabrine to the malaria infected areas for resistance groups who are to fight with us.
2. Deliver to such groups specially prepared vitamins (we have been experimenting on reducing their weight).
3. Take advantage of the new methods of dehydration of foods and also the concentration of vitamins.

In addition to the work to be done by Strategic Services for its own operations, Governor Lehman felt as I did that it could be done on a larger scale by bringing the various agencies of the government and working out a plan where we could be used by those agencies as the distributor behind enemy lines.

For all of this, of course, air transport would be needed.

copy for Governor Lehman.

OFFICE OF STRATEGIC SERVICES
A MEMORANDUM SERVICE

INTEROFFICE MEMO

TO: General Donovan
FROM: J. A. Hamilton *JAH*
SUBJECT: Your Memorandum for the President

DATE: 19 June 1943

In order to include the policy matter mentioned this morning, I suggest that your paragraph 3 be amended to read as follows:

✓ In areas where it is now impossible or undesirable to attempt to supply the population as a whole, Strategic Services does have means to supply specific resistance groups. For humanitarian reasons as well as for strengthening our position with these hidden armies of occupied areas in aiding their will to resist, we present the following:"

DRAFT

June 19, 1943

MEMORANDUM FOR THE PRESIDENT

FROM: William J. Donovan

Governor Lehman is to talk with you concerning our intensifying the use of food and medicine as a weapon of war, a subject which I discussed with him yesterday. ^P Due to your ~~success~~ we have already been successful in getting some dehydrated food into Yugoslavia.

Our real problem is to give nourishment to the resistance groups with whom we are working. Everywhere there is undernourishment, particularly in China. ~~There is also weakness due to malaria conditions.~~ ^{in addition} ^{as well} There is malaria in nearly all of the places where we shall penetrate.

In areas
✓
For humanitarian reasons as well as for strengthening our position with the hidden armies of occupied areas in aiding their will to resist, we present the following:

1. Move atabrine to the malaria infected areas for resistance groups who are to fight with us.

- 2 -

2. Deliver to such groups specially prepared vitamins (we have been experimenting and ~~can~~ ^{in reducing the weight} to a great extent ~~eliminate the fat~~ which adds weight to vitamins).

✓ 3. Develop with the ~~Quarter Master Center~~ ^{the use of plants whose bulk can easily be reduced} ~~with whose division we are now working on experiments.~~ ^{and also the ~~development~~ ^{use of} of vitamins} and carried in small containers.

In addition to the work to be done by Strategic Services for its own operations, Governor Lehman felt as I did that it could be done on a larger scale by bringing together the various agencies of the government and working out a plan where we could be used by those agencies as the distributor behind enemy lines.

For all of this, of course, air transport would be needed.

My dear Governor Lehman:

Here is copy of a memorandum I have sent to the President. I hope you agree.

Dr. Rogers will be getting hold of you and I hope something will be worked out before my return.

The Hon Herbert S. Lehman
Fore Policy
Rehab
State Dept
Washington D C

June 17, 1943

The Hon. Herbert Lehman
Foreign Relief and Rehabilitation
State Department
Washington, D. C.

My dear Governor Lehman:

Here is copy of a memorandum I have
sent to the President. I hope you agree.

Dr. Rogers will be getting hold of
you and I hope something will be worked out
before my return.

Sincerely yours,

William J. Donovan

OFFICE OF STRATEGIC SERVICES

CONFIDENTIAL

INTEROFFICE MEMO

TO: Brig. Gen. William J. Donovan

DATE June 18, 1945

FROM: Lt. Col. Atherton Richards

SUBJECT: Atabrine

The following represents a brief summary of the atabrine investigation:

Atabrine, the synthetic anti-malarial (prescribed for U. S. Army use by the Surgeon-General) provides a potent psychological warfare weapon, subject to ready direction at specific targets and areas. Its availability in adequate quantity would -

- a) Materially assist the military and production efforts of our allies,
- b) Enhance our standing with neutrals and peoples of liberated areas,
- c) Counter Axis control of the world's quinine production, and its propaganda use by the enemy,
- d) Aid the will-to-resist of occupied areas.

Present combat areas and likely U. S. Army participation therein, lie largely in the heaviest malaria-infected regions.

Its provision by the U. S. is in keeping with the Nation's unselfish, constructive humanitarianism and concern for the welfare of the individual -- particularly in war demoralized areas. Malaria is the greatest source of trouble to everyone in the tropics and sub-tropics, and is becoming increasingly dangerous in certain temperate zones. The National Research Council figures an annual world malaria incidence of 300,000,000 cases, with 3,000,000 deaths resulting therefrom.

Production of atabrine for psychological warfare use in 1944 (by at least doubling the present total authorized U. S. production of 930,000 pounds) can be achieved -

CONFIDENTIAL

Brig. Gen. William J. Donovan

- 2 -

- a) Without material time delay (4 to 6 months).
- b) Without undue upset to other U. S. war production requirements,
- c) With negligible overseas transport demands for foreign delivery of output (less than 2,000 tons)
- d) With an expenditure of only approximately \$1,200,000 for additional manufacturing facilities, and approximately \$20,000,000 annual disbursement for 1,000,000 pounds of atabrine, to keep 22,000,000 otherwise malarial casualties on their feet and "fit to go."

To gain the outstanding results possible with the availability of atabrine, requires -

- a) Issuance of appropriate instructions to secure additional production.
- b) Determination of areas and national groups to be provided with this remedy.
- c) Coordination of foreign distribution facilities available through Office of Lend-Lease, Office of Foreign Relief and Rehabilitation, FEHW, CIAA, OSS, Red Cross.

ak

SECRET**OFFICE OF STRATEGIC SERVICES****INTEROFFICE MEMO**

TO: Director of Strategic Services **DATE:** May 26, 1943

FROM: Executive Officer, OSS Planning Group

SUBJECT: Vitamin Concentrates

1. The Planning Group has considered a proposal from Mr. Edmond Taylor that the OSS arrange to purchase \$9,000 of vitamin concentrate pills (sufficient to care for 20,000 persons for 6 months). These would be used (a) to maintain the health of OSS operational personnel in the field, and (b) as a psychological warfare measure, to distribute among civilian populations of occupied countries, especially to underground and resistance groups. The formula used parallels the formula for vitamin pills used by the Army. Other details of the product and its uses are given in the attached file.

2. Strong approval of this project has been expressed by the Planning Group. The Navy Department has already indicated desire for \$9,000 worth of the product for use of the OSS mission in China as soon as possible.

3. The Planning Group recommends:

a. That the OSS arrange to purchase from the Squibb Company \$36,000 worth of the described vitamin concentrate pills;

b. That \$9,000 worth of these pills be shipped to each of the Strategic Service officers in the European, North African, Middle Eastern, and Far Eastern theaters, as stock-piles;

c. That a copy of the attached letter be sent at once to each of the above Strategic Service officers;

d. That upon receiving their replies, the OSS arrange to purchase such further supplies of the product as will meet the theaters' needs;

e. That Lt. Col. Richards be assigned to handle details of preparing instructions in various languages and of supervising distribution.

Attachment

cc Dr. Rogers
Major Doering

A. H. Onthank
A. H. Onthank,
Colonel, M. I.

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- 2 -

described as underpar, and one tablet a day is sufficient to restore health to those suffering from vitamin deficiency diseases.

7. The extremely small bulk of these vitamin tablets and the very important part they can play in maintaining the health of persons in war-torn areas makes them not only an essential requirement for our own personnel but also very potent weapons of psychological warfare. Nothing could be more helpful to our cause or persuasive to the apathetic and malnourished citizens of occupied territory than an intelligent OSS agent with the power to restore the health and even to save the lives of men, women, and children in his district.

8. Strategic Services Officers in each theater will quickly recognize the potential value of these vitamin concentrates and will regard them as effective weapons to be distributed economically and to the greatest possible advantage. To each theater has already been allotted a supply sufficient for 20,000 adults for a period of six months. It is requested that the Strategic Services Officer of each theater make an immediate estimate and report of additional quantities for which he foresees an early and probable usefulness. This should be a six months' estimate. At the same time should be indicated the amount to be distributed to various language groups in order that proper instructions for use may be printed to accompany the packaged material. Because of enemy counter-measures which might conceivably endanger the success of this program, it will be regarded and classified as secret.

William J. Donovan
Director

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Director of Strategic Services

May 25, 1943

Executive Officer, OSS Planning Group

Vitamin Concentrates

1. The Planning Group has considered a proposal from Mr. Edward Taylor that the OSS arrange to purchase \$5,000 of vitamin concentrate pills (sufficient to care for 20,000 persons for 3 months). These would be used (a) to maintain the health of OSS operational personnel in the field, and (b) as a psychological warfare measure, to distribute among civilian populations of occupied countries, especially to underground and resistance groups. The formula used parallels the formula for vitamin pills used by the Army. Other details of the product and its uses are given in the attached file.

2. Strong approval of this project has been expressed by the Planning Group. The Navy Department has already indicated desire for \$5,000 worth of the product for use of the OSS mission in China as soon as possible.

3. The Planning Group recommends:

a. That the OSS arrange to purchase from the Squibb Company \$35,000 worth of the described vitamin concentrate pills;

b. That \$5,000 worth of these pills be shipped to each of the Strategic Service officers in the European, North African, Middle Eastern, and Far Eastern theaters, as stock-piles;

c. That a copy of the attached letter be sent at once to each of the above Strategic Service officers;

d. That upon receiving their replies, the OSS arrange to purchase such further supplies of the product as will meet the theaters' needs;

e. That Lt. Col. Richards be assigned to handle details of preparing instructions in various languages and of supervising distribution.

Attachment

cc Dr. Rogers
Major DoeringA. H. Onthank,
Colonel, M. I.

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INAP?

From: Director of Strategic Services **Date:**
To: Strategic Services Officer, _____ **Threat:**
Subject: Vitamin Concentrates

1. Our operational plans contemplate active participation of several thousand officers and men in various parts of the world. In addition to these, many thousands of natives will be organized and directed by OSS operational nuclei. The physical condition of OSS personnel and of guerrilla units combatting the enemy is of paramount importance.

2. In some occupied territories, food is insufficient in quantity to sustain life. In all occupied and enemy territory, however, food is insufficient in quality and variety to maintain health. Shortage of essential fats, vegetables and fruits has caused widespread vitamin deficiency diseases which in some areas are so prevalent as to seriously reduce the capacity of the people to resist the invader. This is the situation in Norway today.

3. In many other parts of the world, scurvy, beri-beri, pellagra, digestive disorders, nervous disorders, diseases of the skin and serious loss of weight combine to reduce the morale and fighting ability of populations who would otherwise be willing and able to wage guerrilla warfare.

4. The OSS has neither the authority nor the facilities to undertake the feeding of large numbers of people in occupied territories. Nevertheless, we are now preparing to supply our own personnel, guerrilla groups and their families with the vitamins necessary to maintain them in good physical condition.

5. This will be accomplished by a vitamin preparation which is a modification of the British and American Army standard vitamin pill. In the form of highly concentrated tablets, five and one-third pounds will adequately supply 1,000 adults for one month. Each tablet contains vitamins A, C, and D, and three of the B vitamin fractions.

6. For adults already well, one tablet a week is sufficient to maintain health on any diet adequate in quantity. Two tablets a week are required for those whose health may be

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described as underpar, and one tablet a day is sufficient to restore health to those suffering from vitamin deficiency diseases.

7. The extremely small bulk of these vitamin tablets and the very important part they can play in maintaining the health of persons in war-torn areas makes them not only an essential requirement for our own personnel but also very potent weapons of psychological warfare. Nothing could be more helpful to our cause or persuasive to the apathetic and malnourished citizens of occupied territory than an intelligent OSS agent with the power to restore the health and even to save the lives of men, women, and children in his district.

8. Strategic Services Officers in each theater will quickly recognize the potential value of these vitamin concentrates and will regard them as effective weapons, to be distributed economically and to the greatest possible advantage. To each theater has already been allotted a supply sufficient for 20,000 adults for a period of six months. It is requested that the Strategic Services Officer of each theater make an immediate estimate and report of additional quantities for which he foresees an early and probable usefulness. This should be a six months' estimate. At the same time should be indicated the amount to be distributed to various language groups in order that proper instructions for use may be printed to accompany the packaged material. Because of enemy counter-measures which might conceivably endanger the success of this program, it will be regarded and classified as secret.

William J. Donovan
Director

SECRET

MEMO

July 3, 1943

Please note the last few paragraphs
of the attached, which suggest a more specific
program.

(SGD.) J. G. POGGERS

FROM: The Coordinating Office
 SUBJECT: Plan for Use of Atabrine as a Weapon of
 Psychological Warfare

The Coordinating Office is responding herewith to an oral request for a plan for the production and use in 1944 of one million pounds of atabrine as a weapon of psychological warfare. This assignment requires submission of proposals covering primarily -

1. How much an amount of atabrine can be obtained;
2. Who shall pay for it;
3. Who shall be claimant agency and be responsible for its distribution;
4. To what areas or theaters it shall be allocated;
5. How it shall be distributed after allocations have been decided -
 - a) How to get it into the countries selected;
 - b) How it shall be distributed within those areas;
6. What methods are to be used to make certain that the psychological warfare phases of atabrine distribution are properly capitalized.

Attention is drawn to the detailed memorandum on this general subject, entitled "Atabrine, A Potential Psychological Warfare Weapon," submitted under date of 21 June, 1943.

A. How it can be obtained.

Upon reference of a specific plan by the Advisory Committee, the Planning Group should recommend to the U. S. Joint Chiefs of Staff that the Office of Lend-Lease be requested to instruct the War Production Board to arrange for the production of an additional ear-marked supply of 1,000,000 pounds of atabrine for 1944. (Actual contracts for deliveries to be placed through the Office of the Surgeon-General of the Army.)

availability of facilities needed for the manufacture of additional atabrine came from the two executives of WPB who are directly responsible for providing that anti-malarial. They assured us that with proper support from those in responsible positions, the minor amount of critical material required could be obtained, and manufacturers located who would expand present production or commence original manufacture.

Authority should be procured from the Joint Chiefs of Staff to permit WPB to either -

- a) Contract for a comparable amount of atabrine for the year 1945, or
- b) Reimburse producers with a negotiated sum of money
- c) Make a price adjustment per thousand tablets to amortize the capital investment made by the producers in providing additional production facilities for this added atabrine supply.

- B. Payment of the approximate \$22,000,000 required, to be made by Lend-Lease.

Of the foregoing estimated sum, \$1,000,000 represents cost of additional plant and equipment facilities required, \$19,350,000 for the 4,300,000,000 tablets, and \$500,000 for special distribution and delivery costs.

- C. Claimant Agency - Responsibility for Distribution.

- I. Lend-Lease should be constituted the primary claimant agency in the Division of Drug and Cosmetic Requirements Committee of WPB for atabrine for psychological warfare. Lend-Lease storage and transportation facilities, both in the U. S. and abroad, should be utilized to handle this atabrine.

- II. To avoid duplication of personnel in distributing organizations in the various theaters, continuing

- b) BEW
- c) OFRR
- d) Red Cross
- e) OSS

III. A central clearing unit, with representatives of all the organizations mentioned above, and one from WHO, should be created as the authority to coordinate and administer the overall approved plan for the procurement and distribution of this ear marked atabrine for psychological warfare purposes. A permanent executive officer of the committee should be appointed so that effective administration of the supply and distribution of this atabrine could be assured.

D. Areas to which atabrine should be allocated. Prime responsibility for distribution therein.

Having in mind that this plan pertains to 1944, it is essential the plan be elastic. On the basis of the present outlook, the following allocation is accordingly proposed:

- I. Concentrate first efforts on the Mediterranean and Middle East areas, because that is where
 - (1) American troops are in large numbers;
 - (2) Progressive military activities are going on;
 - (3) Malaria is heaviest (with the exception of the Far East).

a) Italy (including Sicily and Sardinia).

The National Research Council shows an incidence of 12,000,000 cases of malaria before the war. Probably the situation is worse now. If the trend of events leads us into Italy in 1944 or earlier, atabrine will be a vital factor in our ability to stay there and keep the people at

of atabrine available to the Italians. The loss of this supply should be offset, at least in part. It is recommended that 126,000 pounds be set aside for Italy, enough to care for 3,000,000 "suppression" cases. Distribution in this area should be handled by the OFR&R.

b) Yugoslavia. The National Research Council shows 3,000,000 malaria cases a year before the war. It probably is much worse now. Allocate 42,000 lbs., enough for 1,000,000 "suppression" cases.

Distribution to be by OFR&R, if the area is liberated; otherwise, by the Red Cross.

c) Greece. The situation in Greece is tragic. Prior to the war, there were 2,000,000 malaria cases a year. Malaria thrives on starvation, devastation and lack of sanitary precautions, all of which exist in Greece. Set aside 84,000 lbs., enough for 2,000,000 cases. Distribution to be by OFR&R, if the area is liberated; otherwise, by the Red Cross.

d) Turkey. The Black Sea Coast of Turkey - the part that may play an important role in the war, is black with malaria. The number of cases was estimated at 3,000,000 a year in that country before the war, out of a total population of 18,000,000. Allot 21,000 lbs. to Turkey, in addition to 27,000 lbs. allotted by Lend-Lease for 1943. If Lend-Lease continues its 27,000 lbs. in 1944, that would provide "suppression" treatment for 1,250,000 persons in Turkey

8) Iran-Iraq. With a population of 20,000,000, Iran and Iraq had 3,000,000 cases of malaria a year. Iran is a vital area with American supply installations and the road to Russia. Native labor can be helpful in many ways. Goodwill is needed. Allot 21,000 pounds, enough for 500,000 "suppression" treatments. More can be provided later.

Distribution to be set up through Lend-Lease.

II. Russia. Russia, it is understood, was manufacturing atabrine just before the war sufficient for its needs at that time. The factory or factories were supposedly in Rostov and/or Kharkov. Russia is asking now and securing atabrine for its military use from Lend-Lease.

Heaviest malarial areas in Russia are in the Black Sea region, now held largely by Germany - the areas from Odessa to Novorossiisk. When and if Russia retakes that area, it will need still more atabrine than it needs now. Enough to care for 3,000,000 "suppression" cases should be allocated - 126,000 pounds. Distribution should be via Lend-Lease.

III. South China and Burma. Here, the situation is difficult. There is no question of need; the problem, in so far as China is concerned, is one of transportation. When fighting really starts in Burma, with U. S. Forces participating, the military forces will have their atabrine. But a supply should also be available for the civilian population, to get their goodwill, to keep men at work doing jobs for which soldiers can't be spared - building roads, airports and runways, raising food,

South China, next to India, has the largest number of malaria cases per year, and one of the highest rates - 75 million cases in an area that contains 250,000,000 people - an incidence of 30%. Burma has 4,000,000 cases a year. Original allocation for these combined areas is 168,000 pounds for 1944, enough for "suppression" treatment for 4,000,000 persons. A reserve allocation is made of 168,000 pounds, enough to take care of another 4,000,000 persons if things open up in Burma and China. Distribution should be via Lend-Lease, with OSS assisting in the area.

IV. Out of the 1,000,000 pounds presumed available in 1944 from this plan, 756,000 pounds have been allotted, leaving a reserve of 244,000 pounds for later specific determination.

E. Reference to the figures in the accompanying chart, entitled "Allocation Plan for an Additional 1,000,000 Lbs. of Atabrine in 1944" will cause question on one phase in particular.

I. Out of 756,000 lbs. allocated, there is only reasonable assurance of 294,000 pounds being delivered through channels operative under present conditions.

II. It should be borne in mind, the plan forecasts requirements and allocations for 1944. At no time, even in 1944, will there be a total of 1,000,000 pounds of atabrine available for distribution.

There is little possibility of an over-supply in the first few months of 1944, even if Italy, Burma and China cannot be opened.

III. The monthly production schedule, should be the primary basis for planning. If orders are placed

that, once an area is supplied with a given amount of atabrine, the suppression treatments thus afforded will be continued by additional supplies, while psychological warfare incentives therefore prevail.

IV. The Philippines, Indo-China and Thailand may come into the picture.

Unless we plan now to have atabrine available for China, Burma, Italy, etc. - the places now closed - it will be too late to get it when they are opened. It is far safer to have the atabrine than to start planning when it is needed.

F. How to get the atabrine into the countries selected, and how to distribute it within these countries.

- I. Lend-Lease will deliver to allied nations. Then the Red Cross, or a similar organization, can take over the distribution. (For "suppression" cases direct medical supervision is not required. In the U. S. Army the usual method is a "muster check," usually at mess time, to see that the soldier takes his tablet. Similar procedure is possible with civilians.) For acute cases, the Red Cross operates through doctors and hospitals, and emergency centers.
- II. Neutrals. BEW operates on a business basis, permitting wholesalers and jobbers (distributors) to buy from American concerns in accordance with an allotment to the jobbers' or wholesalers' country. The same method always used for distributing drugs in those countries could be continued.
- III. Enemy-Occupied Countries. The American Red Cross, operating through the International Red Cross at Geneva, is gradually working out a satisfactory

ment, the Swedish Red Cross and the International Red Cross Committee. It is known as the Swedish Swiss plan. Material (for Greece, for instance) is shipped in care of that committee, which has arranged with other committees in Greece for proper distribution of certain percentages for various districts, in accordance with reported needs. Medical representatives on the committee take care of organizing for the distribution of medical supplies and drugs. Similar arrangements have been worked out by the Red Cross for that part of Yugoslavia in which the guerrillas operate. In these cases supplies go to Geneva and are routed from there, with permission of the controlling authorities, into the areas where medical supplies are needed. There the International Red Cross delegate is using the Serbian Red Cross as the medium wherever possible and other methods where necessary. Similar plans are being worked out in Poland, the Netherlands and Belgium. Thus far there have been no reports to indicate that any of the material has been diverted to Axis use.

G. Capitalizing Distribution.

- I. Lend-Lease. With the exception of Russia, Lend-Lease can make such terms and conditions as seem wise in connection with the distribution of Lend-Lease material.
- II. BEW. Undoubtedly even in areas where BEW operates, terms and conditions can be made that will help the U. S. cause. The OFRR, of course, will have no difficulty in capitalizing on its distribution of atabrine.

To get maximum effectiveness, they have to be printed in the vernacular - not the official language - of the area in which distribution is to be made. Labels and instruction material are only a part of the exploitation job. In some areas these may be the most valuable goodwill producers. In others, however, newspaper articles, posters, radio and other similar activities may be more important. That undoubtedly will be true in the liberated areas.

The spade work of proper preparation is difficult and time-consuming. Without it, many opportunities for worth-while exploitation would be lost.

It is recommended that the central clearing unit arrange for the establishment of a complete plan of exploitation, from the physical availability of atabrine in the desired area to the individual's dosage and recognition of the source of his alleviation.

H. Educational campaign needed to properly exploit the psychological warfare potentials of atabrine. Since the authorized increased production in April, there has not been any compelling pressure for more atabrine production, either from the Armed Forces, Lend-Lease, SEW, or even the Red Cross.

I. In foreign countries little is known about atabrine, or that a stock of it is or will be available in the U. S. Use of anti-malarials has never reached down into the masses of the people. Quinine, before the war, was never made available to as many as 10,000,000 persons, out of an estimated 300,000,000 malaria cases in the world.

II. The problem of using atabrine as a weapon of psychological warfare involves more than its manufacture and the setting up of a distributing organization,

is used.

I. Specific steps deemed necessary to implement foregoing plan.

- I. Secure general approval of program from organizations cited in paragraph C-II (Advisory Committee in attendance at meeting of June 30, 1943).
- II. Submission by the Planning Group of JCS of recommendation of the plan to the U. S. Joint Chiefs of Staff.
- III. Presuming approval of plan by the JCS (and previously by the Office of Lend-Lease), Lend-Lease to request Office of the Surgeon General of the Army to contract as Lend-Lease's representative for the desired atabrine - utilizing the services of the Division of Drug and Cosmetic Requirements Committee of WPB in negotiating specific contracts.
- IV. Create the central clearing unit (outlined in paragraph C-III, select the executive officer thereof and request immediate action upon formulation of detailed plans for achieving the desired results of the plan.

OFFICE OF STRATEGIC SERVICES

Coordinating Office

By _____

Atherton Richards
Lt. Col., AUS

(18552)

(18552)

ALLOCATION PLAN FOR AN ADDITIONAL 1,000,000 LBS. OF ATABRINE IN 1944

	<u>Annual Incidence</u>	<u>Atabrine Allotment For Civilians From Other Sources - 1943</u>		<u>Allotment for Civilians From New Supply - 1944</u>	
	<u>Persons</u>	<u>Pounds</u>	<u>Persons</u>	<u>Pounds</u>	<u>Persons</u>
1. Mediterranean					
Italy	12,000,000	--	--	125,000	3,000,000
Yugoslavia	3,000,000	1,140 (a)	28,000	42,000	1,000,000
Greece	2,000,000	7,000 (a)	160,000	84,000	2,000,000
2. Turkey	3,000,000	27,000	648,000	21,000	500,000
3. Iran-Iraq	3,000,000	--	--	21,000	500,000
4. Russia	10,000,000	--	--	126,000	3,000,000
5. Burma * and South China	79,000,000	--	--	163,000	4,000,000
Special Reserve for Burma and South China				163,000	4,000,000
				755,000	18,000,000
Additional Reserve				244,000	6,000,000
				1,000,000	24,000,000

(a) Red Cross
* 4,000,000 in Burma; 75,000,000 in China

NOTE: No provision has been made for the following highest endemic malarial areas; West Africa, including Liberia; The Philippine Islands; Spanish and Portuguese possessions in Africa and in the Atlantic; Indo China; Siam; Straits Settlements, and biggest of all, India, with 100,000,000 cases of malaria a year.

June 29, 1943

Date 11 June 1943To: GENERAL DONOVAN

The attached memorandum from General Simmons was received in response to an inquiry made by Major Shor who is assembling data on the subject of atropine for the Planning Group. He has made sufficient copies of this letter for his purpose and the attached original is for your information and files.

S.T.S.
Office of the Secretariat
aw

(9139)

IN REPLY REFER TO SPMC

WAR DEPARTMENT
 SERVICES OF SUPPLY
 OFFICE OF THE SURGEON GENERAL
 WASHINGTON

10 June 1943

MEMORANDUM for - The Director,
 Office of Strategic Services

Subject: The use of atabrine by the Army

1. For the past fifteen months the Army has used atabrine almost exclusively for the suppressive treatment of malaria when necessary in troops exposed in tropical overseas theaters. Hundreds of thousands of men have taken the drug regularly for periods ranging from several weeks to several months or more. Although toxic reactions have been observed in a relatively small proportion of individuals, they have usually been mild in character, have occurred principally when the drug was first started, and in general have not interfered with the continued administration of the drug.
2. To a large extent atabrine has supplanted quinine in the treatment of clinical cases of malaria among Army personnel. Atabrine is recommended and is generally used for the major portion of the therapeutic course of treatment.
3. Experience has been that atabrine is, in general, as effective as quinine for the suppressive and curative treatment of malaria.

James S. Simmons
 James S. Simmons,
 Brig. General, A.C.S.,
 Director, Preventive Medicine Division



ALL COMMUNICATIONS SHOULD BE ADDRESSED TO "THE SURGEON GENERAL, U. S. ARMY, WASHINGTON, D. C."

Atabrine
Melania
Parasita
Y. lo...
...

OFFICE OF STRATEGIC SERVICES

WASHINGTON, D. C.


May 19, 1943

TO: General William J. Donovan
FROM: R. Davis Halliwell
SUBJECT: Atabrine

Attached herewith is the original of the report on atabrine furnished you by Mr. Tryon, which, you will recall, we borrowed at the time of the meeting with Dr. C.

We also attach the original of the report from Walter [unclear] to you on the subject of concentrated vitamins, under date of [unclear].

Captain Hoffman and I are trying to work out a scheme to [unclear] the vitamins and the atabrine, which may be helpful in [unclear] [unclear], as well as the other theatres where the supplying of these two pharmaceuticals might cause immense good.


R. Davis Halliwell
Lt. Colonel, USMC
Chief, [unclear]

RDH:ET

Attachments

SECRET

OFFICE OF STRATEGIC SERVICES
WASHINGTON, D. C.

Atabrine 10495
**Atabrine*
**Vitamin*
**Quinine*
**Hemoglobin*

April 23, 1943

MEMORANDUM

To: General Donovan
From: Ellery C. Huntington, Jr.
Subject: Atabrine

All OSS can do is present the facts, but this would make some more bad friends for us. We are out of our field in this project, in my opinion.

E. C. H., Jr.

Attachments

SECRET

Atabrine 10.1.87

OFFICE OF STRATEGIC SERVICES

INTEROFFICE MEMO

TO: General Donovan
FROM: R. C. Tryon *RC*
SUBJECT: Atabrine

DATE: April 17, 1945

The attached memorandum was prepared at the request of Walter O'Meara. It is a sequel to his memorandum to you of March 29. I understand that it was O'Meara's intention that this memorandum be forwarded for your consideration.

SECRET

OFFICE OF STRATEGIC SERVICES

INTEROFFICE MEMO

TO: W. O'Meara
FROM: J. A. Hamilton
SUBJECT: Atabrine

DATE April 16, 1946

Pursuant to your request I am herewith bringing the atabrine situation up to date.

1. Some time ago, at the request of the Near East Division of the State Department, we made an informal examination of the International Red Cross requirements for Greece, and made various recommendations with respect to food and medical supplies.

2. On March 24, 1943, Mr. Foy Kohler of the State Department informed us that the International Red Cross had been forbidden to purchase atabrine because of almost complete absorption of present and anticipated supplies by United Nations military needs.

3. Examination of the atabrine production situation revealed the following:

a. The armed forces, traditionally dependent on quinine, had made no strategic over-all estimate of atabrine requirements. As information from Bataan and Guadalcanal began to trickle in, their requirements were slowly but gradually raised.

U.S. armed forces were not very sensitive to the shortage, since they had first priorities on whatever amounts of atabrine were produced.

b. Lend-Lease supplies, however, were reduced to 47% of the absolute minimum requirements for troops, with no provision for United Nations civilians outside the Western Hemisphere. There was no allowance for such countries as Greece, where 2,500,000 will be infected with malaria this summer, and 300,000 will die, if antimalarial treatment is not begun at once.

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c. Despite the facts that atabrine production requires relatively small quantities of strategic materials, and that U.S. production is theoretically unlimited, expansion of production had been consistently held back.

d. Basic patents for atabrine were developed by I.G. Farbenindustrie, and were held in this country by Winthrop Chemical Company. Control of the latter company, 50% German-owned, was acquired by the Alien Property Custodian, when he vested General Aniline and Film Co., on April 24, 1942. Winthrop, however, was permitted to continue to hold the atabrine patents, with the understanding that Winthrop would expand production to meet atabrine needs.

Winthrop did expand production, and later licensed Merck and Company to produce atabrine for the duration of the war plus six months.

e. A large share of the responsibility for restriction of production lies with the Division Requirements Committee on Drugs, of W.P.B., dominated by Mr. Fred J. Stock and Major John A. Purinton. These men were formerly minor executives in the Prescription Department of Walgreen Drug Stores, and Parke-Davis, respectively.

They have consistently disregarded civilian atabrine needs throughout the world, and assumed responsibility for drastic cuts (to 47%) of United Nations minimum military requirements.

f. As of March 29, 1943, the estimated total production of atabrine for 1943 was 290,000 pounds.

4. When the various persons and agencies concerned with atabrine were canvassed, a remarkable situation was revealed: In at least ten governmental and quasi-governmental agencies, there were persons who were familiar with one or more aspects of the matter, and who were literally exploding with rage. Yet, for one reason or another, they were not able to take definitive action. Examples:

a. The Justice Department after accumulating 35,000 documents relating to German-American chemical industries and patents, was called off the case because of political pressure. Persons concerned with the matter were so disturbed about it that we were able to obtain pertinent bits of information as a private citizen, without OSS identification.

-3-

b. Various committees of the National Research Council were quite aware of the seriousness of the situation, but their charter specifies that they are to furnish reports at the request of Government agencies, rather than to initiate action.

5. In the light of the facts which developed, it became apparent that pressure from many sources would have to be exerted to effect any appreciable change in the situation. Furthermore, every day lost worsened the already desperate situation. The following actions were taken:

a. A memorandum was forwarded to W. O'Hearn on March 29, 1943, with recommendations for J.C.S. action.

b. The State Department put us in touch with officers of Governor Lehman's Office of Foreign Relief. This group was surprised and disturbed, --- as well they might be, since their relief requirements would be filled only after Lend-Lease needs were met. We suggested that they request an independent analysis of the matter by the National Research Council.

c. The National Research Council, Committees on Medicine and Drugs, once activated, met in Philadelphia and within three days submitted a report to the Lehman organization. (Annex I)

d. The Office of Foreign Relief, in the persons of Messrs. Osborne and Xanthacky, made an aggressive representation of their case to the Division Requirements Committee.

e. Gradually becoming aware of increasing pressure for production, the Division Requirements Committee began negotiations leading toward licensing under pharmaceutical companies, including Abbott Laboratories, Eli Lilly and Company, and E. R. Squibb and Sons. As a result, the anticipated production for the calendar year 1943 was raised to 800,000 pounds (from 290,000 pounds on March 29, 1943).

It should be noted, however, that this anticipated increase is largely on paper, and that volume approaching 80,000 pounds per month will not be reached before December, 1943.

-3-

b. Various committees of the National Research Council were quite aware of the seriousness of the situation, but their charter specifies that they are to furnish reports at the request of government agencies, rather than to initiate action.

6. In the light of the facts which developed, it became apparent that pressure from many sources would have to be exerted to effect any appreciable change in the situation. Furthermore, every day lost worsened the already deplorable situation. The following actions were taken:

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It should be noted, however, that this anticipated increase is largely on paper, and that volume approaching 80,000 pounds per month will not be reached before December, 1943.

SECRET

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6. The expanded production which has been planned during the past fortnight might be looked on with equanimity, were it not for the following ominous facts:

- a. The planned expansion will not provide sufficient atabrine in time to supply needs for the coming summer. Even if a few tons of atabrine are supplied to Greece, this quantity will have to be subtracted from the already reduced requirements of United Nations troops.
- b. The companies licensed by Winthrop have no incentive to push production at the expense of less essential commodities, since their license to use the German patents expires six months after the war.
- c. As was the case with the Merck plant, the new producers will have to wait for priorities on new equipment. This required equipment is not large in quantity, but procuring some of it conflicts with other emergency projects, such as the rubber program. For example, to reach a rate of 5,000 pounds per month, Abbott requires \$18,000 worth of new equipment, including special kettles, glassware and filters. With AAI priorities, they may get this in 3-4 months.
- d. With the same persons in control of the Division Requirements Committee on Drugs of W.P.S., there is good reason to believe that, once a substantial increase is planned and the immediate pressure is eased, these persons will not continue to push production. In the past they have put off claimant agencies from month to month, with continuous promises of abundance just around the corner.
- e. Malaria has been increasing by leaps and bounds as a result of the breakdown of sanitary facilities and the increasing movements of troops and populations throughout the world.
- f. The attached National Research Council report estimates that the present world requirements for atabrine are "more than 9,000,000 pounds per year", or 15 times the hoped for production in 1943.

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Even if India and certain other areas are written off as non-essential, present anticipated production for 1943 is still only 1/5 to 1/10 of the necessary amount, without provision for spread of the disease.

6. The seriousness of the malaria problem is completely out of proportion to the technological problem of increasing atabrine production. New production equipment to raise production one million pounds per year (i.e., more than double the hoped-for capacity of December, 1943) would cost less than one million dollars. This is less than 1/1000 of the cost of the rubber program for 1943.
7. In the light of the situation as outlined above, certain clarifications and actions seem to be of the utmost importance:
 - a. The National Research Council has recommended that adequate production "can best be achieved by the establishment of centralized authority such as is functioning in the control of rubber".

Very pointedly, the choice is between permitting the Division Requirements Committee to continue its incompetent management of the situation on a patch-work basis, or delegating the job to some other authority with sufficient over-all grasp of the situation and control over production materials to guarantee the production of an adequate supply of atabrine.

One of the advantages of such an authority would be its power to secure the unconditional release of the German patents, to the end that the private initiative of pharmaceutical companies would be stimulated by post-war business prospects. This would probably direct immediately a considerable productive machinery from less vital pharmaceutical manufacturing. In addition, research on new variations of the atabrine molecule (now only a fair anti-malarial) would be stimulated. Another advantage of an over-all authority would be its power to mobilize equipment now in existence outside the pharmaceutical industry. For example, the most critical piece of apparatus is the Pfaudler kettle. Many of these might be obtained from breweries.

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-6-

b. The National Research Council has recommended "That antimalarials must be considered in the category of munitions of war".

c. Some military sanitarians held that an occupying army's antimalarial program is relatively independent of the degree of infestation in the civilian population. This contention may not be valid. Other diseases, such as plague, typhus and yellow fever tend to increase in a malaria-infested population, and they may constitute a threat to occupying troops. The reduction of malaria in a civilian population may reduce the number of infested mosquitoes, and thus reduce the frequency of troop infection.

Within the last ten months the stated military requirements of the U.S. and other United Nations have been raised over fifteen times. The stated military requirements may continue to increase.

d. A final example of U.S. backwardness in the management of malaria is seen in the high proportion of our troops which have been incapacitated by this disease. In some theaters this has ranged from 10 to 15% and higher. By contrast, there is fairly convincing evidence that the Germans, in heavy endemic North African areas, rarely lost as much as 1% of their effective strength to malaria.

8. Insofar as OSS is concerned, our activities during the past fortnight have been carried out on an informal basis. We have only suggested lines of action to other organizations, such as the Office of Foreign Relief and the National Research Council. We have not presumed to express or imply any policy or special interest of OSS.

9. Summary and Recommended Action:

The proposal of March 29 presented the atabrine situation principally as it pertained to Greece. Developments since that date indicate that the matter is much more serious, and that its ramifications extend through military as well as civilian organizations.

In the light of this, and in view of the necessity for immediate action, the need for Presidential examination and directive is apparent.

It is therefore recommended that the atabrine situation be submitted to the President.

Enclosure: Annex I --- National Research Council report

ANNEX I

CONFIDENTIAL

COPY

STATEMENT ON MALARIA AND ANTIMALARIALS WITH PARTICULAR REFERENCE TO ATABRINE
PREPARED AT THE REQUEST OF THE OFFICE OF FOREIGN RELIEF AND REHABILITATION OPERATIONS
OF THE DEPARTMENT OF STATE BY THE COMMITTEE ON MEDICINE OF THE NATIONAL RESEARCH COUN-
CIL IN CONSULTATION WITH THE CHAIRMAN OF THE DIVISION OF CHEMISTRY OF THE NATIONAL
RESEARCH COUNCIL AND THE CHAIRMAN OF THE COMMITTEE ON MEDICAL RESEARCH OF THE OFFICE
OF SCIENTIFIC RESEARCH AND DEVELOPMENT.

Malaria threatens allied military success and civil health
in many parts of the world.

Most estimates place the incidence of malaria in the world
at 300,000,000 cases a year, although, some place the figure as high
as 700,000,000. Malaria is the cause of more deaths than any other
infectious disease. The mortality every year from malaria is esti-
mated at approximately 3,000,000.

War has lost to the allies more than 90 per cent of quinine
production and has increased the danger of malaria by starvation,
debility, and disrupted sanitation and by sending millions of sol-
diers into malarial areas. Also malaria and secondarily other epi-
demic diseases will certainly increase as war spreads and new areas
will be infected as soldiers return to spread the disease. The
quantity of quinine now coming from South America is so minute as
to be wholly inadequate to meet the needs for antimalarials as pro-
phylactic and therapeutic agents. If malaria is to be kept within
bounds dependence must be placed on other antimalarials. Search for
new antimalarials, natural or synthetic, is being energetically pur-
sued by appropriate research groups of the National Research Council
and the Committee on Medical Research, O.S.R.D.; however the dis-
covery, evaluation and production of any new antimalarial cannot be
predicted in time to meet the immediate urgent need. Reliance for
the time being will have to be placed on Atabrine the only efficient
antimalarial other than quinine known today.

Malaria is endemic in the areas in which our largest armies
are fighting. In these areas antimalarials are imperative for sup-
pressive treatment for every man every day six to twelve months of
the year and additional amounts are needed for those who develop symp-
toms of malaria and require active treatment.

If the quinine stockpile available to the United States Army
and Navy is reserved for treatment only of the acute cases and for sup-
pressive therapy in the small percentage that may not tolerate Atabrine,
it is obvious that enormous amounts of Atabrine are needed for thera-
peutic and suppressive treatment in our Armed Forces.

If in addition Atabrine is to be supplied to our Allies
only for their military forces the required amount immediately is

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greatly increased.

If, however, it is desired to extend the distribution of Atabrine to the civilian populations of Allied or reoccupied countries the amount of Atabrine required enormously exceeds the amounts now being produced or which will be produced under present plans. (see production figures Page 3 and attached table). If civilian cooperation with the Armed Forces in occupied countries is to be insured suppression of malaria among the civilians is essential.

Before the war the world's annual production of quinine was estimated at 2,240,000 lbs. (The Atabrine equivalent at the established ration of 5 to 1, is 448,000 lbs.) This peacetime production, because of the Cartel, was far below the need. The price of quinine made it entirely unavailable to large masses of the population where malarial infection is heaviest.

For long distance planning, the present small stockpile of quinine in this country can best be ignored as it must be saved by the Army and Navy for special use in special cases, and the importation of South American bark at its present rate will not materially affect the overall picture.

If Atabrine is to supply the antimalarial needs arising from war conditions more than 9,000,000 lbs. may be required.

The estimated production for 1943 is allocated as follows:

Quinine.

1. Existing quinine stockpile - allocated for Armed Forces - Reserved for special cases.
2. South American import - at present not very important.

Total quinine allocated to U.S. Civilians
Quinine to be allocated to U. S. Armed forces.

Atabrine.

3. To the United States Army and Navy 150,000 lbs.
4. To Allies through Lend-Lease 425,000 lbs.
5. To the Board of Economic Warfare 55,000 lbs.
6. To the United States Civilians 12,000 lbs.
7. Little is left for any distribution whatever to reoccupied countries through Offices of Foreign Relief, or other federal agencies, or to occupied countries through Red Cross.

The attached table gives in very rough figures the malaria problem in various countries with

CONFIDENTIAL

- 3 -

the amounts of Atabrine which might be usefully allocated if an effort was to be made to combat malaria there.

The following are the current figures on Atabrine production:

- (a) At present the rate of production is 257,000 lbs. per year in U. S. A., 35,800 in England (estimate).
- (b) By the end of 1943 the capacity is expected to reach 957,000 lbs. per year in U. S. A., 110,000 in England.
- (c) Total anticipated production for 1943 is 600,000 lbs. in U. S. A., 66,000 in England.

The inevitable conclusions are:

- 1. That antimalarials must be considered in the category of munitions of war.
- 2. That greatly increased production of atabrine is immediately imperative and a substantial stockpile must be established without delay.
- 3. That increased importation of South American cinchona bark is urgent.
- 4. It is the opinion of this group that these ends can best be achieved by the establishment of centralized authority as is functioning in the control of rubber.

Approved by the Committee on Medicine, National Research Council in consultation with:

Dr. A. M. Richards, Chairman of the
Committee on Medical Research of the
Office of Scientific Research and Development

Dr. W. Mansfield Clark, Chairman of the
Division of Chemistry, National Research
Council

O. H. PERRY PEPPER
Chairman, Committee
on Medicine, N.R.C.

April 12, 1943

CONFIDENTIAL

TABLE

Place	Population Millions	Estimate of annual Incidence of Malaria		Annual Atabrine requirement in Pounds		
		Percent Population	Number of Cases	For a 5 day Course of treatment	For 30 weeks sup- pressive treatment	Treatment and Suppression
Africa	157	10%	15.7	51,810	405,690	457,490
India	350	35%	100	330,000	2,630,000	2,960,000
Russia	172	5%	8	25,400	211,200	237,600
Other Asiatic Countries	804	20%	160	528,000	4,224,000	4,752,000
Europe	402	2%	8	25,400	215,500	242,000
N. America	184	2%	5.87	29,700	237,000	266,700
S. America	89	10%	4.9	23,370	254,980	263,350
Australia and Oceania	11	2%	.22	616	4,708	5,324
	2,169	14%	304.69	1,021,290	8,133,148	9,154,444

OFFICE OF STRATEGIC SERVICES
WASHINGTON, D. C.

Atedrine - 10,895
SECRET

April 12, 1943

Memorandum to General Donovan

From: Ellery C. Huntington Jr.

Subject: Mid-East Operations - Greece - Medical
Supplies

1. The problem raised in Mr. O'Leary's memorandum of March 29th is one which AG should, perhaps, pose to the Joint Chiefs in memorandum form.

2. This is in effect counter-subversion or protection.

[Signature]
Ellery C. Huntington Jr.
Colonel, AUS

Attachment

*Ellery —
We should talk*

*Just with the
Army General & Co*

SECRET

*Inc. of our facts - 142
and run to P.O.S. D*